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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,464	04/04/2002	Xun Xu		5111

25748 7590 09/15/2003

CELERA GENOMICS CORP.
ATTN: WAYNE MONTGOMERY, VICE PRES, INTEL PROPERTY
45 WEST GULF DRIVE
C2-4#20
ROCKVILLE, MD 20850

EXAMINER

FOLEY, SHANON A

ART UNIT	PAPER NUMBER
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1648

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,464

Applicant(s)

XU ET AL.

Examiner

Shanon Foley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

It is noted that claims 1, 2, 4 and 5 subsection (c) uses the term "ortholog" in the claims. The examiner is unable to locate the meaning of this term in the disclosure or any available dictionary. Applicant is requested to define this term and point to support for the definition within the disclosure in reply to this restriction requirement.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups 1-141, claim(s) 1(a), 1(d), 2(a), 2(d) and 10-12, drawn to a peptide comprising/consisting of an amino acid sequence or a fragment thereof selected from SEQ ID NOs: 3, 5, 7...281, 283 and 285, a first method of making and a first method of using a peptide claimed. Each of the patentably distinct groups corresponds to each SEQ ID NO., respectively.

Groups 142-282, claim(s) 1(b), 2(b), 20 and 21, drawn to a variant of an amino acid sequence of SEQ ID NOs: 3, 5, 7...281, 283 and 285. Each of the patentably distinct groups corresponds to each variant of each SEQ ID NO., respectively.

Groups 283-423, claim(s) 1(c), 2(c), 20 and 21, drawn to an amino acid sequence of an ortholog of SEQ ID NOs: 3, 5, 7...281, 283 and 285.

Group 424, claim(s) 3, drawn to an isolated antibody that selectively binds to a peptide of claim 1. If applicant elects this group, applicant is also required to elect which peptide of claim 1 the antibody selectively binds to, since each peptide and antibody are patentably distinct.

Groups 425-565, claim(s) 4(a), 4(d), 4(e), 5(a), 5(d), 5(e), 8, 9 drawn to a nucleic acid sequence (and its complement) encoding an amino acid selected from SEQ ID NOs: 3, 5, 7...281, 283 and 285 or a fragment thereof. Each of the patentably distinct groups corresponds to each SEQ ID NO., respectively.

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Groups 566-707, claim(s) 4(b), 4(e), 5(b), 5(e), 8, 9, 22 and 23, drawn to a nucleotide sequence (and its complement) encoding a variant of an amino acid sequence of SEQ ID NOs: 3, 5, 7...281, 283 and 285. Each of the patentably distinct groups corresponds to each variant of each SEQ ID NO., respectively.

Groups 708-848, claim(s) 4(c), 4(e), 5(c), 5(e), 8, 9, 22 and 23, drawn to a nucleotide sequence (and its complement) encoding an ortholog of an amino acid selected from SEQ ID NOs: 3, 5, 7...281, 283 and 285.

Group 849, claim(s) 6, drawn to a gene chip. If applicant elects this group, applicant is also required to elect which nucleic acid of claims 4 or 5 the gene chip comprises, since each nucleic acid is patentably distinct.

Group 850, claim(s) 7, drawn to a transgenic non-human organism. If applicant elects this group, applicant is also required to elect which nucleic acid of claims 4 or 5 the transgenic non-human organism comprises, since each nucleic acid is patentably distinct.

Group 851, claim(s) 10 and 11, drawn to a method of producing the peptide variants of claims 1(b) and 2(b). If applicant elects this group, applicant is further required to elect one of the patentably distinct variants produced.

Group 852, claim(s) 10 and 11, drawn to a method of producing the peptide orthologs of claims 1(c) and 2(c). If applicant elects this group, applicant is further required to elect one of the patentably distinct orthologs produced.

Group 853, claim(s) 12, drawn to a method of detecting the peptide variants of claims 1(b) and 2(b). If applicant elects this group, applicant is further required to elect one of the patentably distinct variants produced.

Group 854, claim(s) 12, drawn to a method of detecting the peptide orthologs of claims 1(c) and 2(c). If applicant elects this group, applicant is further required to elect one of the patentably distinct orthologs produced.

Group 855, claim(s) 13, drawn to a method of detecting the presence of a nucleic acid molecule in claims 4 and 5. If applicant elects this group, applicant is further required to elect one of the patentably distinct nucleic acids to be detected.

Group 856, claim(s) 14 and 15, drawn to a method of identifying a modulator of a peptide in claims 1 or 2. If applicant elects this group, applicant is further required to elect one of the patentably distinct peptides modulated.

Group 857, claim(s) 16, drawn to a method of identifying an agent that binds to any of the peptides of claims 1 or 2. If applicant elects this group, applicant is further required to elect one of the patentably distinct peptides the agent binds to.

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Group 858, claim(s) 17, drawn to an agent identified by the method of claim 16. If applicant elects this group, applicant is further required to elect one of the patentably distinct peptides the agent binds to.

Group 859, claim(s) 18, drawn to a method of treating WSBV infection comprising administering an agent identified by the method of claim 16. If applicant elects this group, applicant is further required to elect one of the patentably distinct peptides the agent binds to.

Group 860, claim(s) 19, drawn to a method of identifying a modulator of the expression of a peptide of claims 1 or 2. If applicant elects this group, applicant is further required to elect one of the patentably distinct peptides the modulator effects.

Group 861, claim(s) 24-39, drawn to an isolated nucleic acid reagent. If applicant elects this group, applicant is also required to identify the transcript sequences present in the array.

The inventions listed as Groups 1-861 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature of group 1 is a peptide comprising the amino acid sequence of SEQ ID NO: 3, a first method of making the peptide and a first method of using the peptide. Any subsequent group that does not share the special technical feature with this group, lacks unity of invention with group 1.

The special technical features of groups 2-141 are drawn to peptides comprising amino acid sequence SEQ ID NOs: 5, 7...285, respectively. Each group lacks unity of invention with each other and the first group because each peptide has unique structural and functional characteristics that are not shared by the peptide of group 1.

The special technical feature of groups 142-282 do not share the same structural or functional characteristics with each other or the structural or functional characteristics defining the special technical features of groups 1-141, respectively.

The special technical feature of groups 283-423 do not share the same structural or functional characteristics with each other or the structural or functional characteristics defining the special technical features of groups 1-282, respectively.

The special technical feature of group 424 is an antibody and does not share the same structural or functional characteristics with any of the peptides of groups 1-423.

The special technical feature of groups 425-565 are drawn to nucleic acid sequences encoding specific amino acid sequences. None of these groups share the special technical feature defining each inventive group because each of the nucleic acids comprise distinct nucleic acid sequences

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and encode different products. In addition, none of the products of groups 425-565 share the structural feature of amino acid sequences or the same function with the peptides of groups 1-423 or the antibody of group 424.

The special technical feature of groups 566-707 are drawn to nucleic acid variants. These groups lack unity of invention with each other or the nucleic acids of groups 425-565 because each of the nucleic acids comprise distinct nucleic acid sequences and encode different products. In addition, none of the products of groups 566-707 share the structural feature of amino acid sequences or the same function with the peptides of groups 1-423 or the antibody of group 424.

The special technical feature of groups 708-848 are drawn to nucleic acid orthologs. These groups lack unity of invention with each other or the nucleic acids of groups 425-707 because each of the nucleic acids comprise distinct nucleic acid sequences and encode different products. In addition, none of the products of groups 708-848 share the structural feature of amino acid sequences or the same function with the peptides of groups 1-423 or the antibody of group 424.

The special technical feature of group 849 is drawn to a gene chip. This product does not share any of the features defining the special technical feature of groups 1-848, respectively.

The special technical feature of group 850 is drawn to a transgenic non-human animal. This product does not share any of the features defining the special technical feature of groups 1-849, respectively.

The special technical feature of group 851 is drawn to a first method of making each product of groups 142-282, respectively. This group does not share the same structural or functional features defining the special technical feature of group 1-850, respectively.

The special technical feature of group 852 is drawn to a first method of making each product of groups 283-423, respectively. This group does not share the same structural or functional features defining the special technical feature of group 1-851, respectively.

The special technical feature of group 853 is drawn to a first method of using each product of groups 142-282, respectively. This group does not share the same structural or functional features defining the special technical feature of group 1-852, respectively.

The special technical feature of group 854 is drawn to a first method of using each product of groups 283-423, respectively. This group does not share the same structural or functional features defining the special technical feature of group 1-282, 424-853, respectively.

The special technical feature of group 855 is drawn to a first method of using each product of groups 425-565, respectively. This group does not share the same structural or functional features defining the special technical feature of groups 1-854, respectively.

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The special technical feature of group 856 is drawn to a second method of using each product of groups 1-423, respectively. This group does not share the same structural or functional features defining the special technical feature of groups 1-855, respectively.

The special technical feature of group 857 is drawn to a third method of using any of the products of groups 1-423, respectively. This group does not share the same structural or functional features defining the special technical feature of groups 1-856, respectively.

The special technical feature of group 858 is drawn to an agent. This group does not share the same structural or functional features defining any of groups 1-857, respectively.

The special technical feature of group 859 is drawn to a first method of using the product of groups 858. This group does not share the same structural or functional features defining any of groups 1-858, respectively.

The special technical feature of group 860 is drawn to a fourth method of using any of the products of groups 1-423, respectively. This group does not share the same structural or functional features defining any of groups 1-859, respectively.

The special technical feature of group 861 is drawn to an isolated nucleic acid reagent. This group does not share the same structural or functional features defining the special technical feature of groups 1-860, respectively.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanon Foley whose telephone number is (703) 308-3983. The examiner can normally be reached on M-F 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on (703) 308-4027. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.


Shanon Foley